

# ABSTRACT

The present invention provides an astaxanthin medium-chain fatty acid ester, which is expected to be applied in the fields of food, cosmetics and pharmaceuticals, and has  
5 higher digestibility and tissue penetration than long chain fatty acid ester form astaxanthins.

When the synthesis of an astaxanthin medium-chain fatty acid ester is attempted using the catalytic action of lipase by conventional methods, ester cannot be formed.  
10 However, according to the present invention, a composition comprising an astaxanthin medium-chain fatty acid monoester and/or diester is produced by adding a certain amount of water into a reaction system and reacting an astaxanthin or a long chain fatty acid ester thereof with a medium-chain  
15 fatty acid, a triglyceride thereof or a suitable ester. Moreover, these monoesters and/or diesters are isolated, as necessary. The present invention further provides food or cosmetics comprising the composition of the present invention.